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Original Communications.

A CASE OF DOUBLE MONSTROSITY—UNION UPON THE ANTERIOR MEDIAN LINE FROM CLAVICLE TO UMBILICUS.

By HENRY O. MARCY, M.D., of Cambridge, and R. H. FITZ, M.D., of Boston. Read before the Suffolk District Medical Society, March 25, 1871.

THE startling and strange deformity of monstrosities has always invested these freaks of nature with great interest, both among members of the profession and the public generally. Their fortunately extreme rarity increases this effect. I have, however, the good fortune to have met with a very perfect specimen, to which I ask attention.

Mrs. M., of Cambridge, 29 years of age, is of English parentage, of a healthy family, and herself a strong, well-developed woman. She was married two years since, and one year ago was delivered, by forceps, of a well-developed, but stillborn child. The present pregnancy offered no unusual symptoms.

Labor commenced Feb. 1st, under the attendance of a midwife of extensive practice, whose services were called into requisition at 6, A.M. According to her statement, labor progressed steadily until 11, A.M., when the head, presenting, rested upon the perinæum; and, although the pains continued strong and forcible, no progress was made. Motion was distinctly felt by the mother during the morning hours. I was called at 4, P.M. Found mother anxious, complaining of great fatigue, and begging for ether. Pains were irregular, the labia œdematous, and the lower strait was filled with the child's head, face posteriorly, resting upon the perinæum.

Ether having been given, the head was easily delivered by forceps. With difficulty the shoulders were brought down and the arms extracted, when, traction being made, delivery failed of being accomplished. Upon careful examination, the character and position of the double fœtus was pretty clearly defined. The clavicular union brought up firmly against the symphysis, making extraction by force applied in the axis of the lower strait unavailing. I now introduced the hook into the rectum of the child presenting, and, assisted by Dr. W. W. Wellington, whose aid had been sought, brought down the breech, bending the spine upon itself backward, and delivered the first child. By this manner of rotation, the clavicular bearing upon the symphysis serving as a fixed point, the second child was now brought to lie transversely across the pelvis. The hook was again called into requisition, which found a firm hold at the hip-joint, the breech brought down and the delivery completed. Profuse hæmorrhage followed, which was controlled by the introduction of ice, and external manipulation.

There was one large oval placenta, measuring eight by eleven inches; the cord was thirty-six inches in length, unusually large, and containing only the usual vessels. The fœtuses both showed arrest of development on the median line by hare-lip—one double—and epispadias; otherwise they were perfect and well developed. Weight, without covering, fourteen pounds Length, respectively, twenty and twenty-one inches. Transverse diameter of opposing shoulders along the line of the sternum, nine inches. Union on median line, from clavicle to umbilicus, five and three fourths inches.

The mother made a good recovery, and is now convalescent. The perinæum was ruptured, but union in great part was secured by silver wire sutures, which remained *in situ* for ten days.

Dr. J. B. S. Jackson remarked that the specimen presented was a very fine one of the more common variety of double monster, and was the fifth or sixth case of its kind occurring in this vicinity. In such cases of abnormal development, there is a single heart composed of the various cavities of the two hearts indistinctly fused.

The specimen was referred to Dr. R. H. Fitz for dissection, whose careful report, read before the Society April 29th, is subjoined. Appended thereto will be found a

few interesting generalizations, translated from Förster. The most complete and exhaustive treatise on this subject, however, is by one of our own countrymen—Dr. G. J. Fisher, of Sing Sing, N. Y., and published consecutively in the proceedings of the New York State Medical Society for the years, 1866, 1867, 1869.

The monstrosity presented to the Society by Dr. Marcy appeared to have been formed by the union of two fully-grown fœtuses facing each other, the line of union extending from the top of the sternum to the umbilicus. The bodies did not face each other exactly, but were inclined outwards to a slight extent, the two outer nipples being two inches apart, the two inner nipples separated by a space of one and one-third inches only.

The umbilical opening was an inch and a half in diameter; the abdominal parietes surrounding the opening presented an unbroken crescentic edge, to which a thin, transparent membrane was adherent, except at the lower border, where rupture had taken place, probably subsequent to delivery.

The cord, unusually large, contained three vessels, one very large umbilical vein, and two arteries, also larger than usual. Hypospadias existed in each penis, the urethral opening being at the junction of the glans with the body of the organ.

The extremities were well formed. The heads were normally developed, with the exception of the superior maxillary region; on the one side, there was a fissure of the palate, both hard and soft, on both sides a hare-lip.

For the sake of convenience, the side represented by the fissured palate was called A, that by the hare-lip alone B.

The pectoral muscles were nearly twice as well developed in front where the nipples were farthest apart, as behind where these were less distant from one another. The recti muscles of A and B were widely separated at the umbilical opening, conjoined below this point.

A and B had each a well-developed thymus gland. There were four distinct pleural cavities, and one large pericardial sac. The lungs of both A and B had the normal number of lobes, each pair of lungs being in connection with a single trachea.

There was a common heart for A and B, made up by the fusion of two, lying in the middle of the thoracic cavity. The auricular portion long, cylindriform, three inches in length by one and one-fourth inches in diameter, at each end of which, on opposite sides, were two auricular appendages. The ventricular portion broad and blunt towards the apex, $2\frac{5}{8}$ inches in breadth, $1\frac{5}{8}$ inches in length, the shape as in the turtle.

The auricular portions of the heart contained one large, irregular cavity, in which there was no proper septum; merely an indication of this existed in the form of a thin membrane with a free crescentic edge, running transversely across the cavity just above the opening into the ventricles.

There were three upper venæ cavæ, one very large from A, and a second smaller, at some distance apart; while B had but one, of about the same size as the smaller of A. There was but one inferior vena cava, this entered in B's side of the auricle. From the right lung of A, one very large pulmonary vein proceeded to the heart; four small branches were accidentally cut off just beyond their exit from the right lung. In connection with the left lung of B, were three pulmonary veins, two of small size and one very minute. On the right side of B were two pulmonary veins, each entering the auricle separately.

The ventricular portions of the heart contained four ventricular cavities, all communicating with one another freely, one larger and three smaller. From the common auricle arose the large and somewhat irregular cavity, in connection with which were, 1st, the aorta of B; 2d, by a round opening, about three lines in diameter, without valves, the right ventricle of B, the muscular septum between the two being quite thick; 3d, the right ventricle of A, by a free opening provided with a delicate valve; 4th, the left ventricle of A, by a large opening traversed in various directions by bands of

muscular fibres. This opening was so large that the left ventricle of A and the great cavity from which proceeded the aorta of B, might be regarded as one cavity.

The opening from the auricle into the great ventricle was crossed transversely by a delicate muscular band, connected superiorly with the rudimentary auricular septum previously described, and inferiorly with two sets of valves, which were in close apposition, one of which passed around so as to connect with the aortic valves of B, the other apparently formed by the fusion of two sets of valves, whose relations to the cavities could not be clearly ascertained, but inasmuch as tricuspid valves for A and B were made out, the inference was drawn that the fused valve was formed by the union of the two mitrals.

Both A and B had a distinct pulmonary artery. The aorta of A was considerably smaller than that of B, and gave off, just beyond the left subclavian, the right subclavian, as large as the same; this ran behind the œsophagus, across to the right side, and was distributed as the right subclavian. A branch much smaller than this arose from the right carotid, which sprung directly from the aorta, a little below the point where the right subclavian should arise, but was accidentally cut off a half inch from its place of origin; the attached portion gave off no branches. The ductus arteriosus of A arose from the left pulmonary artery, about one-half an inch from the bifurcation. It was one inch in length, and one-fourth of an inch in breadth, opening into the aorta just between the left carotid and the left subclavian and on the concavity of the arch of the aorta. The arteria innominata of B gave off the two carotids and the right subclavian. The venæ innominatæ of A and B passed behind the arch of the aorta.

Above the umbilicus was a common abdominal cavity, bounded above by a common diaphragm. Somewhat to the left of A anteriorly a large partial deficiency of this muscle existed, as a result of which a spherical depression was formed an inch and a half in diameter and one inch in depth, extending upwards into the thorax, its base formed by the pericardium, not communicating with the cavity of this sac. Below the umbilicus were two distinct abdominal cavities. Corresponding with the condition of the cord there was found but one large vein between umbilicus and liver, and but two hypogastric arteries, both of which proceeded from the pelvis of B, and were unusually large. A had none.

There were two spleens, four kidneys and supra-renal capsules, and two bladders; the pancreas also was double. In the scrotum of B two testes were found, in that of A the left only. Both the vesiculæ seminales were present, also both vasa deferentia on each side.

There was one great common liver, of exceedingly irregular shape, due to the presence of numerous lobules projecting here and there. There were two gall-bladders, one well formed, with a duct running to the duodenum of B. A second gall-bladder adhered closely to B's duodenum, its duct was nicked. No evidence of a gall-bladder was found near the duodenum of A. The necks of the two gall-bladders were about an inch and one-fourth apart and directed towards each other.

There were two stomachs, that of A smaller than that of B. Three and three-fourths inches below the stomach of A, and three inches below that of B, the small intestines became united, and a single intestine remained twenty-three inches in length; this entered a large triangular sac 5×3×2 inches, whose border was scalloped, resembling the large intestine of the adult; from this sac arose two intestines; the length of the one to the cœcum of A was sixteen inches, to that of B, twenty-one inches. From the cœcum to the rectum of A the distance was twenty-eight inches. The corresponding portion of B was twenty-three inches in length. A's intestine from pylorus to rectum, including the common portion, was seventy and three-fourths inches long; B's, seventy inches.

The examination of this monstrosity was conducted under the eye and hand of Dr. J. B. S. Jackson, whose experience and judgment were invaluable in determining the various irregularities of development.

Förster calls a specimen of this nature thoracopagus tetrarbrachius, owing to the union of the thoraces and the presence of four extremities. He mentions the occurrence of 114 cases, of which 20 were males and 69 females. Of the various forms of double monstrosities, this is the most frequent.

A few general remarks selected from Förster *(Die Missbildungen des Menschén)* with regard to these malformations may not be uninteresting.

At first sight of a monstrosity of this nature, the thought presents itself that two distinct individuals exist, which have become united to one another in the uterus; indeed, such was the view of St. Hilaire and the French school in general. Were this theory correct, it would be wonderful

that the corresponding parts of the individuals should become so exactly united, head to head, thorax to thorax, viscus to viscus, &c. Then, again, this view would be insufficient to explain those cases where the doubling occurs at one end of the long axis alone. Were union produced by adhesion, these double monstrosities should be more frequent, when one considers the comparative frequency of twin pregnancies; and it would also be probable that parts not corresponding should now and then become united, as head to breech, front to back, &c., conditions never existing.

According to another view, the original structure of the egg is the cause for the malformation, as the presence of two yolks; Simpson suggested the presence of two germinal spots, Schulze a double germinal vesicle, about which double and confluent primitive furrows occur. Others consider that a division of the primitive layers occurs, or that a sort of budding takes place. Förster suggests as the simplest theory, where all is theory, that after fructification the formation of cells in the blastodermic membrane becomes greater than usual; hence the primitive trace becomes doubled to a greater or less degree.

The probability that the double monstrosity is developed from a single egg is strengthened by the continual presence of a single chorion and placenta. The amnion may become doubled where two distinct individuals occur. Where there is a double pelvis and genital apparatus the sex is always the same, though in some instances an apparent deviation from this law has been observed where the external genitals alone were examined.

The division takes place in the long axis of the body or spinal cavity, the latter being always affected, and the upper or lower end becoming symmetrically doubled; when the duplication is incomplete union takes place.

As a rule, the individuals face one another; when they are inclined laterally the union does not take place exactly in the median line. If the inclination is more towards the heads, the individuals become united by the skulls and lie upon the same line; if towards the sacral end, union takes place here. The explanation of this is, that the embryos lie upon the yolk with the belly downwards, and as they raise themselves from this they remain face to face.

The duplication is generally incomplete where the embryos are connected with the umbilical vesicle and the subsequent allantois; hence there is in general but one umbilicus and one cord.

If the embryos raise themselves from the yolk bladder, above or below, each has its own umbilicus and cord, as seen in the case of the Siamese twins.

The possibility of life depends upon the capability of function of the single and united organs; in many cases such modification of structure exists that loss of function is therewith connected.

CASE OF POPLITEAL ANEURISM CURED BY LIGATION OF THE FEMORAL ARTERY.

By O. C. Turner, M.D., North Attleboro'.

On the 3d of April, 1871, I saw, in consultation with Dr. E. Sanford, of East Attleboro', a case of popliteal aneurism, an account of which may not be devoid of interest to your readers.

The patient, J. B., a colored man of about 50 years of age, was assisting in moving a sick ox three or four weeks previously, when the animal threw its head around and struck him a violent blow in the right popliteal space with its horn. A small tumor was immediately discovered, which continued to increase in size, and which, at the time of our examination, was fully as large as an English walnut, and made locomotion quite painful.

It was determined to try the plan recommended by John Hilton, Esq., F.R.S., as quoted in Braithwaite's Retrospect, Part LIII. p. 140. Accordingly, on Friday, April 7th, the leg was evenly and firmly bandaged from the toes to the knee, and bent to an acute angle. Some trouble was experienced in keeping the leg in that position, but from the 8th to the 14th of April, the leg was faithfully kept in position by the patient, the ankle being tied to the thigh by a bandage of the proper length to maintain the required position. On straightening the leg at the end of this period, the aneurism was found to be undiminished in size, and still pulsating. In the article above referred to, it is stated that after four days of treatment by flexion, a double tourniquet, stopping all pulsation in the aneurism, was applied over the superficial femoral artery, and a pad was strapped over the aneurism itself. It is afterwards claimed that the aneurism was cured by *simple flexion*, which, in view of the above-mentioned *additional* treatment, is open to a reasonable doubt, at least.

Having thus given this method a fair trial, and being obliged to abandon it on account of the accession of severe pain in the knee from long-continued flexion, it was determined to try the method of cure by compression of the femoral artery. A tourniquet was manufactured, consisting simply of a bar of iron three-eighths of an inch in diameter, bent to the proper form to encircle half of the thigh, with a pad on each end for pressure and counter-pressure, the latter being about three inches by four, and the former about an inch and a half in size, and fitted with a screw to regulate the pressure. This tourniquet did not impede the collateral circulation. It was first applied on the 14th of April, but on the 15th it had slipped from its position sufficiently, so that the pulsation was not interrupted. On the 16th, at 9 o'clock, A.M., the pulsation was again observed from the same cause, when the tourniquet was again tightened, and from that time until 3, P.M., on the 18th, a period of fifty-four hours, there was not a single pulsation in the artery below the point of pressure. In Braithwaite's Retrospect, Part LVIII., p. 150, a case is recorded where the cure was effected by this method in twenty-eight hours. Dr. P. H. Watson, of Edinburgh, thinks that if the circulation is completely arrested for twenty-four hours, the sac will be found solidified. In this case, however, the pressure was gradually removed, and the aneurism, although somewhat hardened, still pulsated as strongly as ever. Where the pressure had been applied over the artery, a deep slough now formed, which proved a tedious complication. It was poulticed, and soon separated from the healthy tissue, leaving a large ulcer.

It now became evident that ligation was the only cure, and it was thought best to defer the operation until the ulcer had healed, but on the 8th of May it was found that the aneurism had increased rapidly in size during the preceding twenty-four hours, and the patient was suffering so much pain that it was deemed advisable to operate as soon as possible. Accordingly, on the 9th of May, assisted by Drs. Sanford and Brown, I ligated the femoral artery at the apex of Scarpa's triangle. The upper part of the incision extended into the ulcer, and after cutting through the skin and nerve tissue, the anatomy of the parts became somewhat indistinct, but the edge of the sartorius was readily found, and beneath it the sheath of the artery. Not an unpleasant symptom followed the operation. The foot was enveloped in warm flannels, and the circulation was soon established. The ligature came away on the thirteenth day, and the wound healed favorably. On Decoration Day, three weeks after the operation, the patient walked from his home to East Attleboro', a distance of a mile, and back again, and at the present time, June 1st, is well. There only remains a small superficial ulcer, the remnant of that produced by the compression, and the aneurism, which, at the time of the operation, filled the popliteal space completely, is being rapidly absorbed. The only medicine administered to the patient was some form of opium, which was given freely to subdue the pain during the trials of flexion and compression.

Flexion, depending for its success on the bending of the artery by the contraction of the adductor magnus, and the consequent arrest of the current of blood, failed in this case. Compression entailed a great amount of suffering, and, although kept up for a long time, also failed, and should I ever meet with a similar case, ligation would be my first choice.

Selected Papers.

ON THE USE OF WAX, TALLOW, &c., IN SUPPOSITORIES.

By Charles L. Eberle.

Query 29.—The fusing-point of true butter of cacoa being near that of the temperature of the body, what is the influence of such additions as wax, tallow, &c., on its fusing-point, and to what extent are such additions objectionable, if at all, in vaginal or urethral suppositories?

Pure cacao-butter may be asserted to be but rarely if ever met with in the drug market. The samples for sale vary sensibly in color and consistency, and no positive rule for judging of a pure article by cursory examination can be offered. A candid admission by several prominent manufacturers of the article, reveals the fact of its frequent adulteration, and since the extended demand and sale of this production for cosmetic and suppository application, a greater variety of mixtures known as butter of cacao is to be found than formerly.

The pharmacist, however, but seldom applies it to uses other than in the preparation of suppositories, the successful use of which depends upon a base, whose point of fusion will correspond to animal heat, which can be handled readily when in form, and which upon exposure to the natural heat of the body will promptly liquefy, not

melt slowly, thus depositing quickly the medicating ingredient upon the surface to which it has been exhibited.

The butter of cacao most nearly satisfactory to pharmacial use is of a dirty white, inclined to yellow in appearance, firm under pressure, yet disposed to yield its surface when held in the hand by the warmth thus imparted, fusing readily at or about 98°, which sets rapidly after fusion when exposed to cold, and which, after such exposure, maintains its original character at ordinary temperatures.

Such cacao-butter may be had. I here exhibit a specimen, and under proper manipulation it needs no addition of a hardening ingredient to adapt it to suppository use.

Cacao-butter at 98°F. liquefies. This is more apparent in the rectum or vagina than by merely holding in the hand. The mixtures, I mean the mixtures made by the pharmacist with the cacao-butter of the market, vary in their behavior in proportion to the quantity and character of the hardening ingredient used in connection with it.

A considerable proportion of cetaceum may be added without materially affecting the value of a suppository; at least ten per cent., if combined with the butter, will produce a suppository which will not be complained of by the medical profession, but the slowness with which this alloy, so to speak, fuses, makes this or the addition of any hardening substance a serious objection. We need promptness of action in the application of medicines by suppository, which can be best secured by rapid liquefaction of the excipient, and no mixture or single substance combines the essentials requisite, so completely, as a good sample of so-called cacao-butter.

The addition of wax to cacao-butter is to be reprehended. While, under restriction, a mixture may be formed which will harden more quickly and bear more handling than the butter alone, the reflecting pharmacist will bear in mind, the slowness of its fusion at animal heat, and the consequent suspension of the medicine, which should be diffused and deposited over as large a surface as possible. * * * * *

With regard to the effect upon the animal tissues of such applications of hardened suppositories, I can only say that where they are of such a character as to produce local irritation, the uneasiness induced requires their removal; this objection is now but seldom met with. Within the past two years the education of the pharmacist has materially advanced in this direction, so that no store of repute dispenses cones that will not at least fuse at animal temperature, however slowly this fusion may occur, or however imperfectly they may medicate from the suspension of the medicine until its ejection by the action of the parts. Those having but occasional prescriptions for them, are now in the habit of depending on the larger retail establishments, who furnish the trade with a great variety.

There need be no apprehension of a local irritation arising from the use of wax, if not carried beyond the proper fusing-point. As much as fourteen per cent. is used by pharmacists of good repute, without complaint in this respect. The mixture fuses quite slowly at animal temperature, but there is no apparent dissection of the cone, whereby the wax is separated from the butter *during fusion*, however much this may be the case when the melted substances are allowed to cool *ad libitum*. There is a uniformity of constitution so long as the heat is present.

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The deductions I draw from a close observance of this subject for the past two years are, that the addition of a substance such as wax, spermaceti, &c., to cacao-butter produces a mixture requiring a higher point of heat for its fusion, and in proportion to the amount of such addition; and that when such addition is made, if it should not be sufficient to prevent the fusing of a suppository at animal temperature, no irritating or harmful effect is produced either upon the vagina or urethra. Where a larger quantity than that mentioned above is added, the annoyance produced requires the removal or ejection of the suppository before any harm may be done.—*Proceedings of the American Pharmaceutical Association.*

Reports of Medical Societies.

LYNN MEDICAL SOCIETY. J. O. WEBSTER, M.D., SECRETARY.

FEB. 1.—*Case of Twins; Ante-partum Hæmorrhage.*—Dr. Newhall reported the case.

There was considerable ante-partum hæmorrhage. The first child was living, the second—born half an hour later—dead; no bleeding between the births; placenta single. He thought there was partial placenta prævia, and that the placenta became detached at the birth of the first child, thus accounting for the death of the second.

Dr. Breed thought it would be good practice to deliver the second child immediately, when, in a case of twins, there had been ante-partum hæmorrhage.

Loss of Blood in Labor.—Dr. Breed spoke of Dr. Peaslee's remarks on the favorable influence, on the patient, of some loss of blood in labor and in amputations; as much as was contained in the pregnant uterus or the amputated limb.*

Dr. Newhall thought the recovery, after labor, was fully as rapid as in those cases where no blood at all is lost.

Dr. Galloupe thought the less bleeding the better.

Dr. Breed considered the influence of hæmorrhage unfavorable on the secretion of milk.

Twins; 13 hours' interval.—Dr. Newhall reported the case.

The first child was born at 8, P.M., the other at 9, P.M., the next day, the mother having no pains meanwhile, and sleeping all night. The labor was at eight months.

March 1.—*Re-fracture of Bones for Malunion.*—Dr. Galloupe reported a case of fracture of both bones of the leg, in a child aged 6, in which an irregular practitioner applied a starch bandage, loosely, and allowed it to remain eight weeks, when the bones were found united, but very much out of place. He produced re-fracture, very little force being required. The force was applied laterally. The result was satisfactory. He thought it a mistake to let a deformed limb go uninterfered with, even when a long time had elapsed since fracture.

Membranous Croup; Tracheotomy.—Dr. Emerson reported the case, in a boy of 6 years, as follows:—

"I was called Feb. 8th, and ordered tinct. ferri chlor., gtt. viij., and glycerinæ, ʒi., every four hours. On Feb. 12th he was much improved and was discharged from treatment, with directions to continue medicine some time longer. On the 15th, I was again called, and found that the symptoms had returned, and had been increasing in severity for twelve hours. The prognosis was then very unfavorable, as his strength was exhausted by the previous attack. A mixture containing carbolic acid, tannin, chlorate of potassa and glycerine, was used by the atomizer, with no favorable effect. On the 16th, his condition was such as to require tracheotomy. He was etherized, and the operation was performed by Dr. Galloupe, hardly a drop of blood being lost. He bore it badly, but rallied quickly and was much relieved, and lived about twenty-four hours in comparative comfort."

Epistaxis; Plugging with Strips of Lint.—Dr. Galloupe reported the case, in a man of 75. He had been out in the cold, came in and sat by a hot stove, when he was attacked with profuse epistaxis, losing three pints of blood within thirty minutes. Liquor ferri persulph. was applied locally, and the nostrils were plugged with narrow strips of cloth soaked in persulphate, introduced one at a time, by means of a probe, until the nasal cavity was firmly packed. The strips were of sufficient length to extend from the anterior nares to the pharynx. The bleeding persisted for a week, occurring whenever the plug became loosened by shrinking. The plugging was renewed daily for eight days, when the patient finally recovered. Dr. G. has employed this method in four cases, and finds it much easier than ordinary plugging, and less terrifying to the patient.

Swellings about the Knee.—Dr. Emerson wished to ask the opinion of members on the propriety of opening tumors near the knee-joint, and reported the case of a woman who had a sliver thrust into the sole of her foot, and, two days later, presented a swelling below the patella, which was opened two days afterward, discharging pus.

Dr. Breed reported a case of injury to the knee, followed by abscesses, in a man of feeble constitution, 75 years old. One was opened very near the joint, but not communicating with the synovial cavity. He thought we oftener failed in not using the knife about the knee than in using it.

Dr. Perley reported a case of injury to the knee, with effusion of blood. After some time spent in the vain endeavor to produce absorption, an incision was made and the clots removed, with a satisfactory result.

Dr. Galloupe thought we could operate about the knee with more impunity, now that we have carbolic acid. In a case reported by him last year, of wound of the knee, with discharge of synovia, he attributed the favorable result to the use of carbolic oil, which was kept constantly applied, a new dressing being put on simultaneously with the removal of the old.

Foreign Bodies in Wounds.—Dr. Pinkham reported a case of a blacksmith, who presented a small wound, one inch above wrist-joint, caused by a fragment of iron

* Dr. Peaslee limits his remarks to those cases in which there is marked plethora. Vide New York Medical Journal, January, 1871.—Sec.

which he thought was in the wound. Dr. P. could not find the iron by probing, and inquired "how much searching for it would have been justifiable?"

Dr. Galloupe said, "not enough to injure the soft parts," and reported two similar cases, in one of which he found the foreign body; in the other he did not. As a rule, the fragment is present in such cases, but it is not allowable to cut for it unless there is an absolute certainty of finding it. The same rule should be followed with regard to needles.

April 5.—*Acute Rheumatism; Depletion; Sulphur Treatment, &c.*—Dr. Pinkham reported a case of acute rheumatism, in a large, fleshy man, who had had heart disease for two years. Under the alkaline treatment the heart sounds became very rough and the breathing bad. By advice of Dr. Nye, six leeches were applied to the cardiac region, and a quart of blood was lost. All the bad symptoms were relieved, and there was no recurrence. A blister was subsequently applied over the heart, with apparently beneficial effects.

Dr. Nye had practised venesection in acute rheumatism, some years ago, in a plethoric person, with immediate relief to the bad symptoms. In a case some four months ago, with very bad cardiac and respiratory symptoms, temporary relief was afforded by leeching over the heart, and there was recovery, but with permanent heart trouble.

Dr. Breed thought acute rheumatism was comparatively rare in Lynn. He uses Bennett's treatment—nitrate of potash. In his last case, he applied cotton wool, rubbed full of sulphur, to the painful joints, with almost instantaneous relief to pain. He tried the cotton without sulphur on one side, but it did not have the same effect, and the patient had the sulphur applied there, of her own accord, before his next visit. Dr. B. always puts the patient in blankets, allowing no cotton or linen to touch the person. He has seen a relapse occur on the first resuming cotton clothing.

Dr. Perley had applied cold over the heart, with relief to distressing symptoms. He had found a hot alkaline poultice a very comfortable local application.

Dr. Galloupe had always seen injury from cold applications. In mild cases he applies rubber tissue locally, and finds that sufficient; but in severe cases always uses the cotton and sulphur packing, with great relief to pain. He had six cases with heart trouble the past winter, in all of which the bad symptoms were relieved by blistering the cardiac region.

Tumor of Breast.—Dr. Galloupe presented the specimen, with the following report.

The woman gave birth to a child six years ago, and nursed it for three years. The infant at times pounded this breast so severely as to give her pain, and from that time the gland has steadily enlarged, without pain or cachexia; and from time to time small abscesses formed, about a dozen in all, which discharged laudable pus and healed readily. Thus the symptoms were those of non-malignant enlargement, and an eminent physician from Boston, in consultation, pronounced it such. On removal, the tumor was found to extend into the axilla. The patient has since vomited blood, and complains of pain in the left hypochondriac region, where some induration is discovered. The tumor weighs three pounds, and is evidently scirrhus.

Chloral in Labor.—Dr. Pinkham reported a case. Five grains were given every 20 minutes until ten doses were taken. The pains were previously almost continuous and unbearable; they became regular and their efficacy was not interfered with. The patient slept, only rousing a little on the occurrence of a pain. Had also used it in a case of miscarriage, with similar good effects.

Dr. Nye had used it in several cases, with excellent effect.

Use of Obstetric Forceps.—This subject, previously assigned for discussion, was now taken up.

Dr. Nye thought the profession here erred in not using the forceps often enough, and that the books restrict their use to too limited a class of cases. Had known of several women who lost their lives in consequence of the forceps not being resorted to. In his own practice, he applies them once in 15 cases. He presented statistics from various sources, varying from 1 in 3 to 1 in 720 cases.*

Dr. Perley said he was less inclined than formerly to use forceps, and more to turn.

Dr. Breed reported a case, where there was a good deal of mental disturbance, in which the pains ceased with the head on the perineum, and he applied forceps at once. He asked if it was not for the advantage of the woman to use the forceps in such cases. He thought that in a considerable proportion of cases, the woman gets

* A gentleman residing in Norfolk County, a few days ago expressed it as his belief that the forceps were used *much* less frequently than they should be; he felt that they were a means of relief to the mother which we were culpable in not employing more frequently. In an experience of nearly 4000 cases he had used the forceps about 250 times, or once in sixteen cases.—Ed.

"worn out" before the child is born, and that it is then best to finish the case at once, knowing of no bad effects from this practice. In answer to a question, Dr. P. said that he considered ergot a valuable resource, carefully used, and always carried it with him, but preferred the forceps in these cases of exhaustion.

Dr. Pinkham reported a case in which he waited several hours with the head at the inferior strait and the pains strong, with no progress. On consultation, was advised to give ergot and whiskey once an hour, which he did for three hours. Finally the pains slackened, and he had recourse to the forceps.

Drs. Nye and Breed both expressed the opinion that it would have been better to apply the forceps some hours sooner.

Dr. Perley said great benefit is to be derived, in such cases, from the application of hot cloths to the vulva, and Dr. Breed agreed in that opinion.

Dr. Ahearne reported two cases of application of the forceps above the brim.

Dr. Perley said he preferred always to turn when any interference is necessary while the head is above the brim.

Dr. Breed spoke of bi-polar version, described by Dr. Barnes, as being much less of an operation than turning by the ordinary method, besides being available when the hand cannot be introduced.

Dr. Nye said that when there is an early discharge of water and a protracted first stage, and *loss of strength*, he applies the forceps high up. He also uses them when there are strong pains with no advance.

Exposure of new-born Infants.—Dr. Nye spoke of the management of the child after birth, and reported one case which died of too long exposure in being washed, and another that was chilled and livid, but was saved by the hot bath. He recommends that the child be covered with lard and wiped, no water being used.

Dr. Breed reported a similar case to the above which was relieved by the hot bath, but the child was attacked in the same way the next day and died.

Dr. Pinkham reported a case of death from exposure. He has had 3 or 4 cases in which he is satisfied that death occurred from intentional neglect.

Graefe's Successor.—Prof. Schweigger, a pupil of the late eminent ophthalmologist, has just been appointed to succeed Graefe at the Charité Hospital of Berlin.—*Phil. Medical Times.*

Bibliographical Notices.

Dynamics of Nerve and Muscle. By Charles Rand Radcliffe. London: Macmillan & Co. 1871. Pp. XVI., 288.

The author's peculiar views in regard to the action of nerves and muscles have been known to the profession for many years, and the article on the spinal cord in Reynolds's system of medicine has given them a still wider circulation. These views have not been generally accepted by the profession. The present volume is a more extended work, giving the results of the author's experiments during the last few years, and his conclusions. In the preface he recounts the reason he had for entering upon the study, and mentions his dissatisfaction with his previous labors. Having obtained the new quadrant electrometer of Sir William Thomson and means of measuring the resistance of animal tissues to electrical conduction, he was able to arrive at results more satisfactory to himself.

Without expressing any opinion in regard to the value of his conclusions, we wish to present a summary of them as found in the last chapter.

"Instead of regarding the state of action in nerve and muscle as a manifestation of vitality, there is, indeed, reason to believe that it must be brought under the dominion of physical law in order to be intelligible, and that a different meaning, also based upon pure physics, must be attached to the state of rest.

"There is reason to believe that all kinds of electricity act upon nerve and muscle by way of charge and discharge, the charge antagonizing, the discharge permitting, the state of action.

"There is reason to believe that the blood acts upon nerve and muscle, not by causing the state of action, but by antagonizing it.

"There is reason to believe that 'nervous influences' act upon nerve and muscle, not by causing the state of action, but by antagonizing it.

"The whole case is simple enough. It would seem, indeed:—

"(1) That the sheaths of the fibres in nerve and muscle are capable of being charged like Leyden jars, and that during the state of rest they are so charged.

"(2) That the sheaths of the fibres in muscle are highly elastic.

"(3) That the fibres of muscle are elon-

gated during the state of rest by the charge with which their sheaths are charged, the mutual attraction of the two opposite electricities disposed, Leyden-jar-wise, upon the two surfaces of the sheaths, compressing the elastic substance of the sheaths and so causing elongation of the fibre in proportion to the amount of the charge.

"(4) That the muscular fibres contract when the state of rest changes for that of action, because the charge which causes the state of elongation during rest is then discharged, and because this discharge leaves the fibres free to return, by virtue of their elasticity simply, from the state of elongation in which they had been previously kept by the charge, and that the degree of contraction is proportional to the degree of elongation previously existing.

"(5) That the fibres of nerve are not affected in the same way as the fibres of muscle by the charge and discharge of electricity, because the sheaths of the fibres may be wanting in the requisite degree of elasticity.

"(6) That the blood antagonizes the state of action in nerve and muscle by helping to keep up the natural electrical charge which antagonizes action.

"(7) That 'nervous influence' antagonizes the state of action in nerve and muscle by helping to keep up the natural electrical charge which antagonizes action.

"(8) That diminished efflux of blood to certain nerve-centres leads to successive action in nerve and muscle by disturbing the electric equilibrium of the nervous system which is maintained during the state of rest, this disturbance causing a partial reversal in the relative position of the two electricities with which the sheaths of the fibres are charged, and so necessitating the discharge which is the basis of the state of action; for by this partial reversal, sheaths of which the charge has become negative at the sides and positive at the ends are brought into juxta-position with sheaths, of which the charge remains positive at the sides and negative at the ends—are brought into a relation which necessitates discharge, for discharge must happen when opposite electricities come together."

Mr. Paget's numerous admirers in this country will be sorry to learn that he has felt himself obliged to resign his position at St. Bartholomew's Hospital, London, in consequence of debility left by his recent severe illness.—*Phil. Med. Times.*

Medical and Surgical Journal.

Boston: Thursday, July 13, 1871.

DOUBLE MONSTER—ISCHIOPAGE.

A friend has recently placed in our hands a photograph of the double monster, known as the "Ohio double babies," Mina and Minnie, of the teratological genus designated by St. Hilaire *Ischiopage* (*Ischiadelphe*, Dubreuil). We present the subject this week as interesting in connection with the case offered by Drs. Marcy and Fitz.

The monstrosity known as Ischiopage is characterized by the union at the pelvis of two individuals, placed end to end and having a similar position, that is with the faces turned to the same side. An ischiopage is, in fact, a double being, having at each extremity a head, thorax, abdomen, with the organs proper to each upper and lower extremities, but a common umbilicus. The last point indeed, that of a common umbilicus, is the distinguishing characteristic of a family including five genera of which Ischiopage is the first.

Ischiopage is, comparatively speaking, by no means rare; many and useful observations have been made by Palfyn, Duverney, Dubreuil, St. Hilaire, Fisher, Förster, and others, and from their writings we gain our knowlege of the monster in question. The descriptions of the monsters observed by them correspond substantially with that of the children, Mina and Minnie, which we condense from our cotemporaries. The children were born on the 12th of last October, in Peru, Ohio, and are, therefore, at this time, between eight and nine months old. Early in this, her fourth pregnancy, the mother met with a severe fall and narrowly escaped a miscarriage. The labor, at term, was unusually easy, the mother being quite alone at the time of birth. From the position of the children in bed, the physician, who arrived shortly after, concluded that the larger of the children came first. The weight, at birth, was ten pounds. There was but one placenta and one cord.

On one side of the common trunk appear two perfectly formed legs, one of which be-

longs exclusively to Mina, the other to Minnie—a fact proved by tickling each foot alternately. Between these limbs are situated one anus and one set of the external genital organs of a female. At the middle of the abdomen is seen the common umbilicus of the two children, and running from this to the mons veneris is a fine line or cicatrix. On the opposite side of the pelvis projects a rudimentary limb, made up of two lateral halves, contributed equally by each individual. It contains a broad femur deeply furrowed in the median line, two tibiæ and two fibulæ, and ends in a foot furnished with two calcanea, two big toes and six little ones. This fused or siren limb is so twisted on its axis that its heels look upwards, while the children are lying on their backs. The vascular and nervous systems of each individual are independent and distinct. Thus the pulse of one beats faster than that of the other; one child sleeps quietly, while the other is awake and tossing about its arms and legs; one is weak and puny, the other healthy and active. At one time a change of milk caused a diarrhœa in one child, while the discharges of the other remained of a feculent character. One nurses at one time and the other at another time, and the nursing of one child does not satisfy the other. Ordinarily, the act of defecation in one child seems to excite peristaltic movements in the bowels of the other, as is shown by two evacuations in quick succession. The bladder is apparently in common. Except in the pelvic organs and the united legs, the children are apparently well formed.

An interesting question in reference to these children is their duration of life. With the exception of one case, and that not well authenticated, no example of ischiopage is known which has lived more than a week. These children have now reached eight months, and are, to all appearance, thus far, reasonably healthy.

Salivation consequent upon Artificial Teeth.—In answer to Dr. O'Connell's question, in the Journal of June 29th, I say that I have seen several cases such as he describes, where the teeth were upon *red rubber* plate. At this moment, I can recall three such cases seen within a twelvemonth.

Charles E. Buckingham.

A rare Entozoon in the Hog. By Dr. T. S. Cobbold.—Yesterday (Jan. 10th), I received a letter from Prof. Wm. B. Fletcher, of the Indiana Medical College, Indianapolis, U.S.A., enclosing several minute fragments of one or more parasites, with a request that I would inspect, determine and report "as to what they are." Microscopic examination at once revealed their strongyloid character; and I subsequently satisfied myself that they were examples of a remarkable parasite, known only to systematists in helminthology under the title of *stephanurus dentatus*. It was not surprising, therefore, that Dr. Fletcher should seek in vain through the works of Von Siebold and Küchenmeister, and my own general treatise, for any account of this entozoon.

The *stephanurus* was first described by the late Dr. Carl Moritz Diesing, of Vienna, in 1839, and I am not aware that any one has since met with it. Fortunately, through Dr. Diesing's kindness, I am possessed of an almost complete set of his writings, among which is the valuable monograph containing a full and accurate description of this worm. Without, however, going into details about the singular character of the parasite, I will only remark upon one or two important practical matters.

Dr. Fletcher says that "in demonstrating the function of the liver" to his class, he "found a worm in the portal vein, hepatic substance and hepatic vein;" and further, that "upon examination at the packing houses, where two thousand hogs are killed daily," he "found this worm in nine out of ten hogs" which he examined. I am not quite sure whether he means nine out of *every* ten hogs, or if he only examined ten hogs altogether. In either case, the observation is a very remarkable one. It is added that the kidney, bronchi, and portal vessels formed the most frequent habitat. He also "found little cysts in the pyramids of the kidney," and likewise "excavations in the lobules of the liver containing great numbers of the eggs."

The above facts are too important to be remarked upon in all their bearings; but I may note that, whereas this parasite was originally found singly, or several together, occupying cysts in the fatty tissues of the hog, Dr. Fletcher finds it occupying various organs. The true discoverer, Dr. Natterer, obtained his specimens from one or more individuals of a Chinese race of hogs at Barra do Rio Negro, Brazil, on the 24th of March, 1834. Here, then, we have a parasite hitherto only once met with in a

particular race of swine reared in South America, now found, after more than thirty years' interval, to be remarkably abundant in hogs killed for curing in Indiana, North America.

I regard this discovery by Dr. Fletcher as exceedingly important, since it not only shows how readily the mere existence of entozoötic diseases amongst animals (used as food) is overlooked; but it also shows to what a degree parasitism may abound without exciting any suspicion in the minds of those persons whose duty it is to look after the welfare of our cattle, sheep, swine and other domesticated animals.—*British Med. Jour.*

Monochromatic Illumination.—Whenever I want to make out some of the minutest details of any organism, or to get over any difficult test, and I see that my microscope, after all due preparation, and with the best prospect of light, fails to answer my expectation, I refer, as a last resource, to my prism, and get from it a colored sunbeam. Blue or green are the colors which I prefer; they are the most suitable for the purpose.

The elimination of every, even the slightest, chromatic aberration obtained by this means increases, in my opinion, the defining and penetrating power of the microscope, and enlarges its dominion on the field of observation. Different other means have been now and then suggested, such as an alcohol light saturated with chlorine of iodine, or a light passed through a stratum of cupreo-ammoniacal solution, or even through a glass of cobalt; all these lights may be very useful and for some special purpose even preferable to any other, as Dr. Woodward observed, speaking of photography; but for direct observations with the microscope, the effects obtained by them are by no means to be compared with the marvellous results of a mono-chromatic illumination. And I do not think it absolutely necessary for this purpose to have recourse to a beam of the *sun*, which in many countries less favored than Italy is not rarely a mere desideratum, and very often a dim, cloudy thing. A brilliant luminous point of electric light—a light obtained from oxhydrogenic flame—acting upon lime, magnesium, or zirconium, perhaps also the magnesium-wire lamp, may supply the deficiency of the sunbeam. Each of these simply white lights decomposed through a prism, will give a monochromatic illumination sufficient to reveal the best structural details, which, up to this day, have baffled the keenest researches of the student.—Count Castracane, *Monthly Microscopical Journal.*

Neuralgia treated by the Constant Current.—Dr. Buzzard and Dr. Anstie reported cases to the Clinical Society in which this mode of treatment proved very effective. In Dr. Buzzard's case, a woman, aged 65, had suffered for three months from paroxysms of agonizing pain in the neck and right arm, which attacked her several times every hour night and day, deprived her of rest, and rendered her arm useless. The neuralgia had followed seizures which sufficiently indicated its central origin, and this, coupled with the age of the patient and the degeneration of the tissues, rendered its cure in the highest degree improbable. Applications of a sedative character had been useless in relieving her suffering. A constant current derived from ten cells (increased afterwards to fifteen cells) of a Weiss's battery was applied from time to time, between the cervical vertebræ and the hand, with the effect of producing remarkable relief to her pain, insomuch that she at one time thought herself cured. Under the influence of this treatment the patient was enabled to sew, and to cut her food with the right hand, which had previously been so helpless that she was forced to lift it with the other. With the view of testing the effects of the application it had been omitted on several occasions, and other remedies, as blisters, sedatives, and tonics, had been employed, but these failed in preventing the paroxysms of pain. Summing up the results of treatment, Dr. Buzzard said that out of sixteen applications of the constant current, ten had been followed by very great and well-marked relief, two by moderate relief, and four by very slight relief. Dr. Buzzard brought the case forward, not as one of cure of neuralgia, but as a good example of the effects of the constant current in relieving pain; and he drew attention to the process because it was as yet very little employed for this purpose in this country, although, as was well known, its efficacy had been perfectly recognized and insisted upon abroad for many years past. Dr. Anstie referred at the same meeting to two cases—one of severe neuralgia in the right cervico-brachialis in a married woman, aged 48; the other of a double cervico-occipital neuralgia in an unmarried needlewoman, aged 30. In the former case a cure was effected; in the latter, not. The constant current was employed, with a strength

of ten cells, afterwards increased to fifteen; the positive pole in the first case being applied alternately on the various foci of pain, the negative pole being applied by the right side of the three lower cervical vertebræ. The pain was at once diminished, and ceased altogether at the end of thirteen days; and a secondary anæsthesia of the skin, with secondary paralysis of the deltoid and trapezius, were removed at the end of twenty-four days' treatment. The cure was found persistent six weeks later. Dr. Anstie remarked that the effect of the constant current in neuralgia was remarkable, but that there were as yet some unexplained anomalies in its action. In the large majority of cases it acted as a palliative most strikingly. In a not inconsiderable number of cases it appeared to cure the disease absolutely; in a few examples it failed to produce any good effects. As a general rule, it was far less effective in the neuralgias of old persons with degenerated tissues than in younger subjects; but occasionally even a young person, like the second of his cases, fails to derive benefit from it.—*Lancet.*

At a meeting of the Pathological Society of Philadelphia, Dr. W. F. Jenks presented a specimen of congenital sacral neuroma amyelinicum, followed by hydrocephalus and death, with the following history:—

The mother states that during gestation she suffered from a constant dragging pain in the right side. The labor, however, was normal, unattended with unusual hæmorrhage, and the placenta, which was examined by the physician in attendance, was pronounced to be healthy. At birth, the head of the child was of moderate size, the body well formed, except that an unnatural opening existed over the sacral region, extending two and a half inches downward from the last lumbar vertebra, and being about two inches wide at the broadest part. From this irregularly oval cavity there exuded for some days after birth, after a large, firm coagulum, which completely filled it, had been removed, a thin serous fluid. Cicatrization gradually took place, and when the child first came under observation at the clinic of the University, the sacral region presented the following appearances: The cutis covering the place which had been open at birth was of a livid bluish hue, exceedingly delicate—so thin, in fact, that rupture seemed imminent, bulging out in places in the form of small bullæ. Around this central portion the skin was indurated, of a deep scarlet color, and stretched tightly over the subjacent parts. The spinous processes of the rudimentary vertebræ could be felt widely separated on each side, while the space between them gradually diminished until the fourth lumbar vertebra was only partially cleft. After the complete closure of the sacral opening, which took place about the fourth week of life, hydrocephalus gradually developed, and the head of the child now presents all the characteristic deformities of this condition. The left side was, however, much more prominent than the right, this semi-circumference being in fact nearly an inch larger than the other by actual measurement. No systolic blowing murmur is heard over the tense and prominent anterior fontanelle. Convulsive movements of the lower extremities occurred when the hydrocephalus first commenced to develop rapidly, but of late have been wanting. There is partial paralysis of motion and sensation in the lower extremities. The intelligence of the child is good. The mother states that during the first week after birth it frequently voided bloody stools, and that later it suffered continually from intestinal derangement. It gradually sank, and died two weeks after it first came under treatment.

A *post-mortem* examination was obtained with difficulty, and, owing to continual interruption by the friends, was necessarily incomplete. Of the *brain*, the left ventricle was distended by about a quart of clear, transparent yellow serum, less than half an inch in thickness, and only a thin shell of brain-tissue remained. The right ventricle contained but a small amount of fluid.

The tissues over the sacrum were removed for a more careful examination. The membranes of the cord are thickened. The central spinal canal is distended to the diameter of a tube the size of a crow-quill, on the sides of which the nerves can be seen flattened out, and spiral in their course. At the extremity of the spinal cord, and corresponding to a slight umbilication of the integuments, there is a tumor the size and shape of a peach-kernel, which, when first examined, was of a pale-grayish color. The elements were so closely matted together as almost to give the impression of a homogeneous mass. Since maceration in dilute chromic acid, it has a more spongy appearance, and can be readily picked apart for microscopical examination. This growth is enclosed in the thickened dura mater spinalis, from which, however, it can be easily separated. With a low power (No. 4 Hartnack) it seems to consist of countless fibres interlacing with and crossing one another

in all directions, and can scarcely be distinguished from an ordinary fibrous tumor. When examined with a No. 10 immersion lens, it can be resolved into delicate fibrillæ, having only a single contour, in which numerous small oval nuclei are visible. These fibrillæ are stained with carmine, and can be traced here and there to bipolar or multipolar ganglionic cells. In one instance one was followed into a nerve provided with a medullary sheath; in other words, its identity with the axis-cylinder of the nerve was proved. The tumor is mostly composed of these primary nerve fibrillæ without any medullary sheath. Here and there portions of myelinic nerves can be seen, the nuclei, which are normally present in small numbers in the membrane of Schwann, being in a state of proliferation. The tumor, therefore, belongs to that variety of neuromata where the nerve-fibres concerned are those of the so-called amyelin nerves, and has been described by Virchow under the name of neuroma amyelinicum (*Die Krank Geschwülste*, vol. iii. p. 282).

Dr. R. M. Bertolet said great difficulties are usually experienced in distinguishing, even with the use of high microscopical lenses, the amyelinic neuromatous structure from that of the finely-fibrillated fibroma so frequently met with in neoplasms of the nerves. Staining the tissues with a solution of chloride of gold is suggested as being likely to facilitate the establishment of a differential diagnosis. This method of coloring can also be pursued with advantage in specimens that have been kept for some time, since, according to Gerlach's method of combining the terchloride of gold with potassium, it is no longer absolutely essential that the nerve-structure be fresh. In fresh material, osmic acid might also be found of service, by rendering the axis-cylinder more conspicuous.—*Philadelphia Med. Times.*

Two Cases of Abscess in the Mastoid Process; Perforation of the Bone.—*Case* 1.—E. F., six years of age, was admitted into Charing-Cross Hospital, under the care of Mr. Barwell, with a history of severe pain in the head, which had the effect of sometimes driving her "half mad," and at other times of producing stupefaction. She had the appearance of having borne a great deal of suffering, and looked ill; the left ear emitted a thick discharge; the corresponding mastoid process, of which the skin was shining and reddened, was slightly swollen and exceedingly tender; the left side of the pharyx was also somewhat reddened and swollen. On the evidence of these symptoms, Mr. Barwell decided to pierce the bone from behind the ear. A T-shaped incision was made over the mastoid process, and the two flaps were reflected. On the surface of the bone being then gently probed with the point of the knife, a soft spot was discovered, at which an opening was drilled with a pointed gouge. Through this some thick, dark-colored pus escaped, and some fragments of necrosed bone were removed. Mr. Barwell then scraped the carious portions of the bone until healthy tissue was reached, and plugged the wound with a piece of lint dipped in carbolic-acid lotion.

Two days later, the child was free from pain and had lost her suffering appearance. She was ordered ten grains of chlorate of potash three times a day, and was shortly afterwards discharged, with instructions to keep the wound open with a plug of lint, and to attend frequently at the hospital. These injunctions she did not, however, obey, and twelve days after the operation, when she was induced, by a return of the pain in the head, to visit the hospital, the wound was found to have closed. It was re-opened with a probe, and its patency was maintained by means of a nail-shaped plug of gentian-root until the thirty-sixth day after the first operation, when every indication for its continued use had disappeared.

In reference to this operation, Mr. Barwell said that abscess in the mastoid process was not an uncommon disease of childhood. It first found vent into the tympanum through the natural opening, but, on account of the insufficiency of this passage, it also made itself a way into the meatus externus. Sometimes the bone would become more and more affected, until at length the cerebral surface became involved, and then inflammation and abscess of the brain were liable to follow. Another danger, which the proximity of the lateral sinus would explain, was the supervention of pyæmia. The position of that canal also necessitated the exercise of great caution and gentleness on the part of the operator, lest he should plunge his instrument through the inner table of the skull, more especially as in children the tissues of the mastoid process are soft, and of less comparative depth on account of the non-developement of the mastoid cells.

Case 2.—The second case is of greater interest, on account of the patient having reached the comparatively mature age of forty-seven, and as the premonitory symptoms were accompanied by profuse epis-

taxis, for which the patient, Martha B——, was admitted some weeks before the nature of the disease could be made out.

On the occasion of her first admission, the posterior nares were plugged by the house surgeon, Mr. Towt, and large doses of the sesquichloride of iron were administered. The patient was a stout, well-made woman, with a rather puffy face; but no evidence either of kidney or heart disease could be detected. She stated that for some weeks previously she had suffered from occasional epistaxis, and "flying pains" in the head and neck, and that during the night a clear limpid fluid exuded from her left ear. A careful examination of the fauces, nares, and occipital regions threw no light on the cause of her symptoms. The hæmorrhage returned twice during her stay in this hospital, and on the forty-third day she was discharged in an improved condition. About six weeks later she was readmitted with intense pain in the left side of the head, and difficulty in swallowing. The skin over the mastoid process was found to be tumid, red, and very tender. The left side of the pharynx was similarly affected. It was decided to operate in this case as in the preceding one, except that an instrument of rather large size was employed. A large quantity of pus and several small pieces of necrosed bone were liberated. The patient made a rapid and uninterrupted recovery, and left the hospital twenty-four days after the performance of the operation.—*Lancet, April* 29, 1871.

The Influence of Vibriones on Vesical Discharges.—A middle-aged man came under Mr. Simon's care at St. Thomas's Hospital, suffering from stricture of the urethra, and a purulent catarrhal discharge from the bladder, which rendered his urine peculiarly offensive. The urethra was first dilated in two successive operations by means of Holt's instrument, and then the bladder was daily washed out with a solution of quinia through a double-current catheter. Under this treatment the urine became clear and free from offensive odor in a few days, and the patient, from being obliged to rise as many as fifteen times a night to micturate, became able to hold his water so well that he needs to leave his bed no more than once or twice within the same space.

Referring to this patient, Mr. Simon said that the presence of vibriones in a purulent catarrhal discharge from the bladder coincides with an exceedingly foul and offensive condition of the vesical evacuation, which ceases to exist when the destruction of these bodies is effected. That object is attained most readily by injecting into the bladder a solution of quinia. Mr. Simon makes use of the hospital solution, which contains two grains to the ounce. He recommends that nitric acid should be the solvent employed, and that a drop of acid should be added in excess of neutralization.—*Lancet, April* 8, 1871.

New Blood-Crystals.—According to Dr. Preyer (*The Academy*, April 1, 1870, from *Chemisches Centralblatt*, No. 7, 1871), the addition of an equal volume of ether and a little glacial acetic acid to an aqueous solution of blood, from which the chlorine has been removed by argentic nitrate and subsequent filtration, or to an aqueous solution of pure hæmoglobine, causes the ethereal layer to turn dark brown and to exhibit four absorption bands, one between C and D (the acetic-acid band), which lies close to C, a very weak one near D, a strongly-marked broad one at E, and another strongly-marked broad one between B and F. A similar spectrum, first observed by Stokes, is also given by hæmatine that contains no iron. Preyer has found that the coloring-matter of the above solution can be crystallized, if the ethereal layer from the colorless hæmoglobine solution or the blood freed from chlorine be separated very slowly, evaporated, and finally dried over potash solution. The crystals are for the most part acicular, frequently contorted, sometimes in stellar aggregation, sometimes detached. The majority are finely pointed; many show jagged edges. They doubly refract light, surpass in size all other blood-crystals, are insoluble in ether, alcohol, or water, but readily dissolve in potash solution of aqueous acetic acid, and can be recrystallized from the last-named menstruum. They are not identical with hæmine or hæmatoidine, nor, apparently, with Lehmann's hæmatin crystals. They have received the name of *hæmatoine*.

A Family of Suicides.—At the inquest of the body of a man who committed suicide recently in St. Louis, the fact was developed that he had attempted to hang himself five months before, but was cut down by his wife, and that he was the last of a family of six brothers and sisters, all of whom had died by their own hands.—*Philadelphia Medical Times*.

Medical Miscellany.

THE JACOBI PRIZE.—Dr. Jacobi, of New York, has established a prize of two hundred and fifty dollars, to be awarded under the direction of the Medical Society of the County of New York, and open for competition to the profession of the United States, for the best thesis on "The History of the Diseases of Infancy and Childhood in the United States, and of their Pathology and Therapeutics."

SPOON-FEEDING.—Dr. Fürst has published a pamphlet on this subject in Leipzic, wherein he gives good advice to mothers. To judge of the success of this kind of feeding, the author gives the following criteria: At birth, the child weighs from about six pounds and a quarter to eight pounds, the first for girls, the second for boys. During the first three days the infant loses about four ounces, but recovers its original weight about the ninth day. The child should, in the first four months, increase from 300 to 375 grains per diem, and lose only from 150 to 225 grains. At twelve months old, a boy should weigh twenty pounds, and a girl about eighteen pounds and a half. If the child is far below the averages just mentioned, the assistance of a medical man should be requested.—*New York Med. Jour.*

ADVANTAGES OF METHYLENE AS AN ANÆSTHETIC.—Dr. Rendle, of Guy's Hospital, writes to the *Lancet* in favor of the use of methylene. He considers its advantages to be that, when properly administered, it is only exceptionally followed by nausea or sickness, both of which have followed the use of nitrous oxide gas. Its portability as compared with the latter is also an advantage. He states he has given it for operations lasting one hour, when the operator was able to commence in three minutes, and recovery was rapid and not followed by sickness; also for operations lasting less than a minute, when all was finished and the patient sitting up within five minutes without the slightest unpleasant sensation.—*Lancet.*

TREATMENT OF VAGINISMUS.—Dr. Tilt deprecates the division of the vaginal sphincter for the relief of this distressing infirmity, and thinks the best mode of cure is by forcible distention. To effect this forcible distention, he places the patient under the influence of chloroform, and then gradually introduces the two thumbs into the vagina. Placing them back to back, he separates them more or less, according to each particular case, and thus forcibly keeps the vagina distended for five or six minutes. He then introduces a large metal bougie, which is kept up by a T-bandage, and this may be worn with advantage for several days after the operation. Dr. Tilt considers that cases justifying a recourse to this mode of treatment are exceedingly rare, and that in most of the cases in which he has been consulted it has been a symptom of some form of uterine disease, or of vaginitis in very nervous women, and in these he has solved the vaginal spasm by curing the disease by which it was caused. Hence, no kind of vaginal distention should be resorted to by the surgeon until he has convinced himself that there is no disease of the reproductive organs to account for the vaginismus.—*Lancet and Practitioner.*

TRANSMISSION OF PHYSICAL DEFECTS.—At a meeting of the *Société de Biologie (Gazette Médicale de Paris)* M. Vulpian presented several observations in regard to the possibility of transmitting artificially-produced mutilation in animals. The young, born of animals whose spleen had been extracted, have always presented a normal spleen; but a rat whose right testicle had been extracted gave three young males, two of which presented a very marked atrophy of the right testicle, while in one no trace of this organ could be detected by palpation.—*N. Y. Med. Jour.*

TO CORRESPONDENTS.—Communications accepted:—A new Instrument for Craniotomy.—Case of Facial Neuralgia.—The Cold Bath during Menstruation.

BOOKS RECEIVED.—Opium and the Opium Appetite, with notices of Alcoholic Beverages, Cannabis Indica, &c. By Alonzo Calkins, M.D. Philadelphia: J. B. Lippincott & Co. 1871. Pp. 390.—The Principles and Practice of Dentistry, including Anatomy, Physiology, Pathology, Therapeutics, Dental Surgery and Mechanism. By Chapin A. Harris, M.D., D.D.S., &c. Tenth Edition, revised and edited by Philip H. Austen, M.D. Philadelphia: Lindsay & Blakiston. 1871. Pp. 794.

DIED,—At Albany, N. Y, Barent P. Staats, M.D.

Deaths in fifteen Cities and Towns of Massachusetts for the week ending July 8, 1871.

Cities and Towns.	*No. of Deaths.*
Boston	145
Charlestown	8
Worcester	19
Lowell	24
Cambridge	26
Salem	9
Lawrence	10
Springfield	13
Lynn	12
Gloucester	1
Fitchburg	2
Newburyport	7
Fall River	12
Haverhill	7
Holyoke	7
	302

Prevalent Diseases.	
Cholera infantum	53
Consumption	53
Dysentery & Diarrhœa	12

Lowell reports seven deaths from smallpox.

GEORGE DERBY, M.D.,
Secretary of State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, July 8th, 145. Males, 74; females, 71. Accident, 9—apoplexy, 1—anæmia, 2—disease of the bowels, 1—bronchitis, 2—inflammation of the brain, 1—disease of the brain, 7—cerebro-spinal meningitis, 1—cancer, 1—cholera infantum, 32—cholera morbus, 3—consumption, 23—convulsions, 3—croup, 1—debility, 6—diarrhœa, 7—dropsy, 2—dropsy of brain, 1—drowned, 2—exhaustion, 1—erysipelas, 2—bilious fever, 1—typhoid fever, 1—gastritis, 1—hæmorrhage, 1—homicide, 1—intemperance, 3—disease of the kidneys, 2—disease of liver, 4—inflammation of the knee-joint, 1—inflammation of the lungs, 4—marasmus, 2—old age, 2—peritonitis, 1—puerperal disease, 2—pyæmia, 1—rheumatism, 1—teething, 3—inflammation of the throat, 1—whooping cough, 2—unknown, 3.

Under 5 years of age, 73—between 5 and 20 years, 8—between 20 and 40 years, 32—between 40 and 60 years, 17—above 60 years, 15. Born in the United States, 98—Ireland, 35—other places, 12.